### 1 Identification of the substance/preparation and of the company/undertaking

- **Trade name:** GC1 150 RESIN
- **Application of the substance / the preparation:** Epoxy resin
- **Manufacturer/Supplier:**
  AXSON TECHNOLOGIES - Rue de l'Equerre - F-95310 SAINT OUEN L'AUMONE
  Tél.(33-1)34 40 34 60
- **Further information obtainable from:** DPT HSE -(33) 01 34 40 34 60 - safety@axson.fr
- **Information in case of emergency:** ORFILA : (33)01 45 42 59 59

### 2 Hazards identification

- **Hazard description:**
  - Xi Irritant
  - N Dangerous for the environment

- **Information concerning particular hazards for human and environment:**
  - R 36/38 Irritating to eyes and skin.
  - R 43 May cause sensitisation by skin contact.
  - R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Contains epoxy constituents. See information supplied by the manufacturer.

### 3 Composition/information on ingredients

- **Chemical characterization**
  - **Description:** Mixture of substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9003-36-5</td>
<td>bisphenol-F-epichlorhydrine ; epoxy resins (molecular weight ≤ 700)</td>
</tr>
<tr>
<td>500-006-8</td>
<td>Xi, N; R 36/38-43-51/53</td>
</tr>
<tr>
<td>50-100%</td>
<td></td>
</tr>
</tbody>
</table>

### 4 First-aid measures

- **After inhalation:**
  - Supply fresh air and to be sure call for a doctor.
  - In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
  - Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
  - Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
  - Do not induce vomiting; call for medical help immediately.

### 5 Fire-fighting measures

- **Suitable extinguishing agents:**
  - CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:**
  - Water with full jet

(Contd. on page 2)
Trade name: GC1 150 RESIN

· Special hazards caused by the substance, its products of combustion or resulting gases:
  In case of fire, the following can be released:
  Carbon monoxide (CO)
  Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
  Hydrogen chloride (HCl)
· Protective equipment:
  Wear fully protective suit.
  Wear self-contained respiratory protective device.
· Additional information
  Collect contaminated fire fighting water separately. It must not enter the sewage system.
  Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures
· Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.
· Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.
· Measures for cleaning/collecting:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7 Handling and storage
· Handling:
  · Information for safe handling: Ensure good ventilation/exhaustion at the workplace.
  · Information about fire - and explosion protection: No special measures required.
· Storage:
  · Requirements to be met by storerooms and receptacles: Prevent any seepage into the ground.
  · Information about storage in one common storage facility: Store away from foodstuffs.
  · Further information about storage conditions:
    Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls/personal protection
· Ingredients with limit values that require monitoring at the workplace:
  The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· Personal protective equipment:
  · General protective and hygienic measures:
    The usual precautionary measures are to be adhered to when handling chemicals.
    Immediately remove all soiled and contaminated clothing
    Wash hands before breaks and at the end of work.
    Avoid contact with the eyes and skin.
  · Respiratory protection: Not necessary if room is well-ventilated.
  · Protection of hands:
    Protective gloves
    · Material of gloves Synthetic rubber gloves
Trade name: GC1 150 RESIN

- **Penetration time of glove material**
  The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**
  Tightly sealed goggles

- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **General Information**
  - **Form:** Pasty
  - **Colour:** Dark blue
  - **Odour:** Weak, characteristic

- **Change in condition**
  - **Melting point/Melting range:** NA°C
  - **Boiling point/Boiling range:** >200°C (DIN 53171)

- **Flash point:** >110°C (ISO 2719)

- **Ignition temperature:** >300°C (DIN 51 794)

- **Decomposition temperature:** >200°C (DIN 53171)

- **Self-igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Density at 25°C:** 1.28 g/cm³ (ISO 1675:1985)

- **Solubility in / Miscibility with water:** Insoluble.

- **Solubility in organic solvents:** Soluble in many organic solvents.

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
  No decomposition if used according to specifications.

- **Dangerous reactions**
  May produce violent reactions with bases and numerous organic substances including alcohols and amines.
  Exothermic polymerization.

- **Dangerous decomposition products:** Irritant gases/vapours
11 Toxicological information

- **Acute toxicity:**
  - **LD/LC50 values relevant for classification:**
    - 9003-36-5 bisphenol-F-epichlorhydrine ; epoxy resins (molecular weight ≤ 700)
    - Oral LD50 > 2000 mg/kg (rat)
    - Dermal LD50 > 2000 mg/kg (rabbit)

- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Irritating effect.
  - **Sensitisation** May cause sensitisation by skin contact.

12 Ecological information

- **Information about elimination (persistence and degradability):**
  - **Other information:** The product is difficultly biodegradable.
  - **General notes:** At present there are no ecotoxicological assessments.

13 Disposal considerations

- **Product:**
  - **Recommendation**
    Must not be disposed together with household garbage. Do not allow product to reach sewage system.
    Dispose of the product by burning in a suitable incinerator or bury in an approved landfill following all applicable local and/or national regulations.

- **European waste catalogue**
  - 20 01 27 paint, inks, adhesives and resins containing dangerous substances

- **Uncleaned packaging:**
  - **Recommendation:**
    Empty containers may not be disposed of unless any remaining material adhering to the internal walls has been removed.
    Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border)**
  - **ADR/RID class:** 9 Miscellaneous dangerous substances and articles.
  - **Danger code (Kemler):** 90
  - **UN-Number:** 3082
  - **Packaging group:** III
  - **Hazard label** 9
Trade name: GC1 150 RESIN

- **Special marking:** Symbol (fish and tree)
- **Description of goods:** 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resins)

**Maritime transport IMDG:**

- **IMDG Class:** 9
- **UN Number:** 3082
- **Label:** 9
- **Packaging group:** III
- **Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resins)

**Air transport ICAO-TI and IATA-DGR:**

- **ICAO/IATA Class:** 9
- **UN/ID Number:** 3082
- **Label:** 9
- **Special marking:** Symbol (fish and tree)
- **Packaging group:** III
- **Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resins)

### 15 Regulatory information

- **Labelling according to EU guidelines:**
  The product has been marked in accordance with EU Directives / respective national laws.

- **Code letter and hazard designation of product:**
  Xi Irritant
  N Dangerous for the environment

- **Hazard-determining components of labelling:**
  bisphenol-F-epichlorhydrine ; epoxy resins (molecular weight \( \leq 700 \))
  Epoxy derivatives

- **Risk phrases:**
  36/38 Irritating to eyes and skin.
  43 May cause sensitisation by skin contact.
  51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Safety phrases:**
  23 Do not breathe gas/fumes/vapour/spray.
  24 Avoid contact with skin.
  26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  28 After contact with skin, wash immediately with plenty of water.
  37/39 Wear suitable gloves and eye/face protection.
  57 Use appropriate container to avoid environmental contamination.
Trade name: GC1 150 RESIN

· Special labelling of certain preparations:
  Contains epoxy constituents. See information supplied by the manufacturer.

· National regulations:

· Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant R-phrases
  36/38 Irritating to eyes and skin.
  43 May cause sensitisation by skin contact.
  51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** GC 15 DURCISSEUR
- **Application of the substance / the preparation** Epoxy curing agent

- **Manufacturer/Supplier:**
  AXSON TECHNOLOGIES - Rue de l'Equerre - F-95310 SAINT OUEN L'AUMONE
  Tél.(33-1)34 40 34 60

- **Further information obtainable from:** DPT HSE -(33) 01 34 40 34 60 - safety@axson.fr
- **Information in case of emergency:** ORFILA : (33)01 45 42 59 59

2 Hazards identification

- **Hazard description:**
  C Corrosive

- **Information concerning particular hazards for human and environment:**
  The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
  R 21/22 Harmful in contact with skin and if swallowed.
  R 34 Causes burns.
  R 43 May cause sensitisation by skin contact.
  R 62 Possible risk of impaired fertility.
  R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Description</th>
<th>Xn, Xi, R</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2835-13-2</td>
<td>220-666-8</td>
<td>3-aminomethyl-3,5,5-trimethylcyclohexylamine</td>
<td>21/22</td>
<td>25-50%</td>
</tr>
<tr>
<td>80-05-7</td>
<td>201-245-8</td>
<td>bisphenol A</td>
<td>37-41</td>
<td>10-25%</td>
</tr>
<tr>
<td>90640-66-7</td>
<td>292-587-7</td>
<td>Polyethyleneamines, tetraethylenepentamine</td>
<td>21/22</td>
<td>10-25%</td>
</tr>
<tr>
<td>111-40-0</td>
<td>203-865-4</td>
<td>2,2'-iminodiethyamine</td>
<td>21/22</td>
<td>10-25%</td>
</tr>
</tbody>
</table>

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First-aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
  Supply fresh air; consult doctor in case of complaints.
  In case of unconsciousness place patient stably in side position for transportation.

(Contd. on page 2)
Safety Data Sheet  
according to 1907/2006/EC, Article 31  
Printing date 04.03.2009  
Revision: 25.10.2007

Trade name: GC 15 DURCISSEUR

(Contd. of page 1)

- After skin contact:
  Immediately wash with water and soap and rinse thoroughly. 
  If skin irritation continues, consult a doctor.
- After eye contact:
  Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Do not induce vomiting; call for medical help immediately.

5 Fire-fighting measures

- Suitable extinguishing agents:
  CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards caused by the substance, its products of combustion or resulting gases:
  In case of fire, the following can be released:
  Nitrogen oxides (NOx)
  Carbon monoxide (CO)
- Protective equipment:
  Wear self-contained respiratory protective device.
  Wear fully protective suit.
- Additional information
  Collect contaminated fire fighting water separately. It must not enter the sewage system.
  Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.
- Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.
- Measures for cleaning/collecting:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.

7 Handling and storage

- Handling:
- Information for safe handling:
  Ensure good ventilation/exhaustion at the workplace.
  Open and handle receptacle with care.
- Information about fire - and explosion protection: Protect from heat.
- Storage:
  Requirements to be met by storerooms and receptacles: Prevent any seepage into the ground.
  Information about storage in one common storage facility: Store away from foodstuffs.
  Further information about storage conditions:
  Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7. 

(Contd. on page 3)
Trade name: GC 15 DURCISSEUR

Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>111-40-0 2,2'-iminodiethylamine</th>
</tr>
</thead>
<tbody>
<tr>
<td>OES Long-term value: 4.3 mg/m³, 1 ppm Sk</td>
</tr>
</tbody>
</table>

Additional information: The lists valid during the making were used as basis.

Personal protective equipment:

General protective and hygienic measures:
The usual precautionary measures are to be adhered to when handling chemicals.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Respiratory protection: Not necessary if room is well-ventilated.

Protection of hands:

Material of gloves
Neoprene gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Body protection: Protective work clothing

9 Physical and chemical properties

General Information

Form: Fluid
Colour: Amber coloured
Odour: Amine-like

Change in condition

Melting point/Melting range: NA°C
Boiling point/Boiling range: >200°C (DIN 53171)

Flash point: > 100°C (ISO 2719)
Ignition temperature: >300°C (DIN 51 794)
Decomposition temperature: >260°C (DIN 53171)
Self-igniting: Product is not selfigniting.
Trade name: GC 15 DURCISSEUR

- **Danger of explosion:** Product does not present an explosion hazard.
- **Density at 20°C:** 1.04 g/cm³ (ISO 1675:1985)
- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.
- **Solubility in organic solvents:** Soluble in many organic solvents.
- **pH-value at 20°C:** >10

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
  No decomposition if used according to specifications.
- **Dangerous reactions** Strong exothermic reaction with acids.
- **Dangerous decomposition products:**
  *Corrosive gases/vapours*
  - Ammonia

### 11 Toxicological information

- **Acute toxicity:**
  - **LD/LC50 values relevant for classification:**
    - **2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine**
      - Oral LD50 1030 mg/kg (rat)
      - Dermal LD50 1840 mg/kg (rabbit)
    - **80-05-7 bisphenol A**
      - Oral LD50 3250 mg/kg (rat)
      - Dermal LD50 3000 mg/kg (rabbit)
    - **111-40-0 2,2’-iminodiethylamine**
      - Oral LD50 1080 mg/kg (rat)
      - Dermal LD50 1090 mg/kg (rabbit)

- **Primary irritant effect:**
  - **on the skin:** Caustic effect on skin and mucous membranes.
  - **on the eye:** Strong caustic effect.
  - **Sensitization:** Sensitization possible through skin contact.
  - **Additional toxicological information:**
    Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
  - **Sensitisation** May cause sensitisation by skin contact.

### 12 Ecological information

- **Information about elimination (persistence and degradability):**
- **Other information:** The product is difficultly biodegradable.
- **Ecological effects:**
  - **Aquatic toxicity:**
    - **2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine**
      - EC50 (24h) 44 mg/l (daphnies)
Trade name: GC 15 DURCISSEUR

| EC50 (72h) | 37 mg/l (alga) |
| LC 50 (96h) | 110 mg/l (fish) |

13 Disposal considerations

- **Product:**
- **Recommendation:**
  Dispose of the product by burning in a suitable incinerator or bury in an approved landfield following all applicable local and/or national regulations.

- **European waste catalogue**
  20 01 27 paint, inks, adhesives and resins containing dangerous substances

- **Uncleaned packaging:**
  - **Recommendation:**
    Empty containers may not be disposed of unless any remaining material adhering to the internal walls has been removed.
    Disposal must be made according to official regulations.
  - **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- **Land transport ADR/RID (cross-border)**
  - **ADR/RID class:** 8 Corrosive substances.
  - **Danger code (Kemler):** 80
  - **UN-Number:** 1760
  - **Packaging group:** III
  - **Hazard label** 8
  - **Description of goods:** 1760 CORROSIVE LIQUID, N.O.S. (DIETHYLENETRIAMINE, ISOPHORONEDIAMINE)

- **Maritime transport IMDG:**
  - **IMDG Class:** 8
  - **UN Number:** 1760
  - **Label** 8
  - **Packaging group:** III
  - **EMS Number:** F-A,S-B
  - **Marine pollutant:** No
  - **Proper shipping name:** CORROSIVE LIQUID, N.O.S. (DIETHYLENETRIAMINE, ISOPHORONEDIAMINE)
Trade name: GC 15 DURCISSEUR

Air transport ICAO-TI and IATA-DGR:

- ICAO/IATA Class: 8
- UN/ID Number: 1760
- Label: 8
- Packaging group: III
- Proper shipping name: CORROSIVE LIQUID, N.O.S. (DIETHYLENETRIAMINE, ISOPHORONEDIAMINE)

15 Regulatory information

- Labelling according to EU guidelines:
The product has been marked in accordance with EU Directives / respective national laws.

- Code letter and hazard designation of product:
C Corrosive

- Hazard-determining components of labelling:
  3-aminomethyl-3,5,5-trimethylcyclohexylamine
  bisphenol A
  Polyethylenepolyamines, tetaethylenepentamine
  2,2'-iminodiethylamine

- Risk phrases:
  21/22 Harmful in contact with skin and if swallowed.
  34    Causes burns.
  43    May cause sensitisation by skin contact.
  62    Possible risk of impaired fertility.
  52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- Safety phrases:
  20    When using do not eat or drink.
  23    Do not breathe gas/fumes/vapour/spray.
  26    In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
  45    In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
  61    Avoid release to the environment. Refer to special instructions/safety data sheets.

- National regulations:

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant R-phrases:
  21/22 Harmful in contact with skin and if swallowed.
  34    Causes burns.
  37    Irritating to respiratory system.
  41    Risk of serious damage to eyes.
  43    May cause sensitisation by skin contact.
<table>
<thead>
<tr>
<th>No.</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>51/53</td>
<td>Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</td>
</tr>
<tr>
<td>52/53</td>
<td>Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</td>
</tr>
<tr>
<td>62</td>
<td>Possible risk of impaired fertility.</td>
</tr>
</tbody>
</table>